SCE&G®
A SCANA COMPANY

Alfred M. Paglia
Manager
Nuclear Licensing
New Nuclear Deployment

April 24, 2014
NND-14-0195
10 CFR 52.99(c)(1)

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Subject: Virgil C. Summer Nuclear Station (VCSNS) Unit 2
Combined License No. NPF-93
Docket Number 52-027
Completion of ITAAC 2.3.07.08.i

Attachments: References

The purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) of the completion of Virgil C. Summer Nuclear Station (VCSNS) Unit 2 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.3.07.08.i for verifying that a report exists and concludes that the heat transfer characteristic, UA, of each Spent Fuel Pool Cooling System (SFS) heat exchanger is greater than or equal to 2.2 million Btu/hr-°F. The closure process for this ITAAC is based on the guidance described in NEI 08-01 (Reference 1), which was endorsed by the NRC in Regulatory Guide 1.215.

ITAAC Statement

Design Commitment:

8. The SFS provides the nonsafety-related function of removing spent fuel decay heat using pumped flow through a heat exchanger.

Inspections, Tests, Analyses:

i) Inspection will be performed for the existence of a report that determines the heat removal capability of the SFS heat exchangers.

Acceptance Criteria:

i) A report exists and concludes that the heat transfer characteristic, UA, of each SFS heat exchanger is greater than or equal to 2.2 million Btu/hr-°F.

D083
NRO

ITAAC Determination Basis

Multiple ITAAC are performed to demonstrate that the SFS provides the nonsafety-related function of removing spent fuel decay heat using pumped flow through a heat exchanger. This ITAAC verifies the heat transfer capability of the SFS heat exchangers. A report exists and concludes that the acceptance criteria are met and that the heat transfer characteristic, UA, for each SFS heat exchanger is greater than or equal to the value specified in the acceptance criteria as 2.2 million Btu/hr-°F.

Upon final fabrication of the SFS heat exchangers, the vendor validated that the SFS heat exchangers are capable of meeting the specified heat transfer performance requirements. The AP1000 ME3B SFS Heat Exchanger Design Report (Reference 2), was generated identifying the heat exchangers' design and performance characteristics, including the heat transfer characteristic (UA) for each heat exchanger.

The heat transfer characteristic, UA, is calculated by multiplying the overall heat transfer coefficient (U) of the heat exchanger material, by the heat transfer area (A) of the heat exchanger plates.

An inspection was performed of the AP1000 ME3B SFS Heat Exchanger Design Report. The purpose of the inspection was to confirm that the UA of each SFS heat exchanger was determined to be greater than or equal to 2.2 million Btu/hr-°F. The UA of heat exchanger SFS-ME-01A was determined to be 2.3 million Btu/hr-°F and the UA of heat exchanger SFS-ME-01B was determined to be 2.3 million Btu/hr-°F.

The AP1000 ME3B SFS Heat Exchanger Design Report exists and concludes that the UA of each SFS heat exchanger is greater than or equal to 2.2 million Btu/hr-°F.

ITAAC Finding Review

In accordance with plant procedures for ITAAC completion, SCE&G performed a review of all ITAAC findings pertaining to the subject ITAAC and associated corrective actions. This review found that there are no relevant ITAAC findings associated with this ITAAC. The ITAAC completion review is documented in the ITAAC Completion Package for ITAAC 2.3.07.08.i (Reference 3) and available for NRC inspection.

ITAAC Completion Statement

Based on the above information, SCE&G hereby notifies the NRC that ITAAC 2.3.07.08.i was performed for VCSNS Unit 2 and that the prescribed acceptance criteria are met.

Systems, structures, and components verified as part of this ITAAC are being maintained in their as-designed, ITAAC compliant condition in accordance with approved plant programs and procedures.

We request NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99(e)(1).

If there are any questions, please contact Ryder Thompson at (803) 941-9812.

Sincerely,

Alfred M. Paglia, Jr.
Manager
Nuclear Licensing
New Nuclear Deployment

RCT/AP/jl

c. Document Control Desk
Victor McCree – Region II Regional Administrator
Thomas R. Fredette - NRC
Rahsean Jackson - NRC
Denise McGovern - NRC
James Reece - NRC
Marion Cherry – Santee Cooper
Stephen A. Byrne – SCE&G
Jeffrey B. Archie – SCE&G
Ronald A. Jones – SCE&G
Alan Torres – SCE&G
Ryder Thompson – SCE&G
April Rice – SCE&G
Alvis J. Bynum – SCE&G
Julie G. Ezell – SCE&G
Margaret Felkel – SCE&G
Cynthia Lanier – SCE&G
Joel Hjelseth – Westinghouse
Daniel Churchman – Westinghouse
Christopher Levesque – Westinghouse
Brian McIntyre – Westinghouse
Brian J. Bedford – Westinghouse
Tom Geer – Westinghouse
Michael Frankle – Westinghouse
Kathryn M. Sutton – Morgan Lewis
Ken Hollenbach – CB&I Stone & Webster
Curtis Castell - CB&I Stone & Webster
Chuck Baucom - CB&I Stone & Webster
AJ Marciano - CB&I Stone & Webster
Al Paglia-SCE&G
VCSummer2&3ProjectMail@cbi.com
vcsummer2&3project@westinghouse.com
DCRM-EDMS@SCANA.COM

References (available for NRC inspection):

1. NEI 08-01, Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52.
2. VSG-ME3B-VDR-001, AP1000 ME3B SFS Heat Exchanger Design Report
3. ITAAC 2.3.07.08.i Completion Package